latter disease; and he has found the application equally beneficial. In erysipelas, as in burns, M. R. says, the cotton calms pain, as it were, by a charm; a mild and moist warmth takes the place of the itching, the formication, the sharp and biting heat which so much increase the pain; the swelling gradually diminishes, the redness disappears, the skin becomes flaccid and wrinkled, and without becoming covered with those furfuraceous scales, which characterize the termination of erysipelas, and which sometimes continue during a long period. All that separates are a few slight layers of epidermis, and this is speedily effected. The general excitement ceases with the local phenomena, the fever diminishes, and in simple cases the organic functions return to their normal state, without the necessity of any other treatment. A circumstance of great advantage in the use of cotton is, that it is equally fitted for, and produces analogous effects, in all forms of erysipelas, whether idiopathic or traumatic, whatever may be its situation, on the face, body, or limbs; whatever may be the depth of the tissues which are affected; for in the cases which are collected, are some of phlegmonous erysipelas greatly amended and others entirely arrested by the simple application of cotton. The result, M. Reynaud would thus explain,—that the cotton acts by exciting in the diseased part a moderate warmth, a sort of vapour bath which keeps up a constantly equable temperature, a proper degree of humidity, by keeping the diseased part from contact with air and light, two powerful excitants of the cutaneous system. Cotton does not suffice in all cases; no more than other remedies does it enable the surgeon to dispense with general means, but it lends to these a great assistance: it hastens the resolution, and when this termination cannot take place, it still serves to limit the inflammation, and to arrest its progress.

The method of applying the cotton is very simple. Raw cotton which is well carded must be selected, in order that it may be free from all foreign substances which it sometimes contains. A layer sufficiently thick to protect the diseased part from the light and air must then be applied, taking care always that the cotton extends some inches beyond the limits of the inflammation. A compress and a few turns of a bandage will keep the cotton applied. A linen mask is well fitted for the face. The cotton should be removed every twenty-four hours to judge of its effects, or, if there is no contra-indication, it may be allowed to remain during the whole course of the treatment. If the cotton should adhere too strongly to the skin, in a case where there is slight exudation, it may be removed by applying over it an emollient poultice. The author has added to the previous remarks, several cases of various forms of erysipelas treated with cotton; to which it is unnecessary to call the attention, otherwise than to state that seven are cases of simple erysipelas of the face and extremities; that one is of traumatic erysipelas; the ninth of erysipelas complicated with a miliary eruption; four of phlegmonous and one of gangrenous erysipelas.—*Journ. des Connaiss. Med. Chirurg.* Feb. 1837.

32. *Tapping the Head in Chronic Hydrocephalus.*—This operation was proscribed by Gölis, Boerhaave, Heister, Hecker, and Portenschlag, as altogether cruel and useless; and one of the most eminent practitioners of our own country asserts that it has nothing but its hardihood to recommend it. An attentive examination, nevertheless, of the facts which our science now possesses will show that this entire condemnation of the operation is unjust. Vose, Graefe, Rossi and Russel, have each reported cases in which they have performed it with success; and Mr. Greatwood has related a case, where a child of fifteen months old was accidentally cured of the disease by falling upon the back of the head upon a nail; above three pints of fluid gradually escaping from the puncture thus made. A similar case has been also recorded by Dr. Höfling, of Heinfeld, in *Wochenschrift für die gesammte Heilkunde*, 1837, No. 41. The patient, a boy, aged 5, presented the symptoms of chronic hydrocephalus in a marked degree. The temporal and frontal regions of the head were, in particular, largely developed, and projected far over the diminutive face. The general health, however, still continued good, and there was no particular ailment. Whilst in this state, the boy received a severe blow on the forehead from the hoof of a cow, which produced momentary stupefaction. Examination shewed that the frontal bone, already extremely thin, had been broken by the stroke, and that a considerable quantity of water had escaped, and still continued to flow from the

wound. The water continued to come away in a steady flow during the eight following days, when the wound closed. Two years after this accident, the boy continued in the enjoyment of good health. The head was still large when compared with the face, but its proportion to the body was nearly natural.

In our No. for August 1830, we inserted a notice of two cases of Hydrocephalus, in which the water had been evacuted by puncturing the ventricles, by Dr. Conquest, of London, and it appears from a communication in a late No. of the *London Medical Gazette*, (17th March, 1838, p. 967,) that the physician just mentioned has since resorted to the same measure in seventeen cases, making *nineteen* in all, and that "of these, *ten* were living when last heard of."

"Several of the children, before the operation," he says, "were reduced to the most deplorable condition, having frequent convulsions, with loss of sight, emaciation, &c.; but the diminution or disappearance of these symptoms has been very remarkable. In some cases the results have been triumphantly successful; in others, from the reluctance of the patients to have the operation repeated, only temporary relief has been afforded; but none of these children died either during or immediately after the operation, and those which, in the subsequent list are reported as dead, survived weeks or months after the fluid was withdrawn."

The operation as performed by Dr. Conquest, "consists in passing a small and delicately constructed trocar into one of the lateral ventricles, and drawing off so much fluid as the powers of the constitution will admit of. The most eligible spot at which the trocar can be introduced, is in the course of the coronal suture, about midway between the crista galli process of the ethmoid bone and the anterior fontanel, so that the danger of wounding the corpus striatum is avoided on the one hand, and the longitudinal sinus on the other. The instrument usually penetrates about two inches, and in most cases the serum has been colourless, but occasionally tinged with blood. In one instance, and that was in the last child operated on at St. Bartholomew's only a few weeks since, a large and alarming quantity of florid blood escaped; most likely from a branch of the meningeal artery. Sometimes on withdrawing the trocar the water will not flow until a probe has been passed along the canula to remove portions of cerebrum which block it up. After taking away all the fluid that can be removed consistently with safety, the head, which should always be steadily compressed by an assistant during the operation, may be strapped with adhesive plaister, that it may retain its diminished size, and that the fearful consequences of suddenly removing long-continued pressure from the brain may be averted."

The *first* operation was performed in the autumn of 1828, on Catharine Seager, aged 20 months, whose head had been enlarging during the previous six months. Not more than two ounces of serum flowed; but on a probe being passed into the ventricle when the child reached home, a considerable quantity of fluid escaped *stillicidio*, so that during the night it was calculated that the saturated bandages and napkins could not contain less than two pints. Only one paroxysm of convulsions followed the operation, and some symptoms of meningeal irritation which supervened were speedily subdued by leeches and evaporating lotions. Two years and a half subsequently Dr. Conquest saw this child in perfect health, and in the full possession of its intellectual powers.

The *second* case was that of William Honey, aged 8 months. The enlargement of the head had been perceptible about six weeks, and on the 20th of November, 1829, Dr. C. tapped him at St. Bartholomew's Hospital, and withdrew twelve ounces of colourless serum from the right ventricle. December 2nd, twelve ounces more were drawn off, and on the 16th, an additional ten ounces and a half; making the total quantity thirty-four ounces and a half. This child was in a most promising way; when it was attacked with pertussis, and fell a victim to this disease some months after the last operation.

The *third* operation was performed on a patient of Dr. H. S. Caldwell, and we quote the case as related by this last named physician. "William Wilmer, aged 4 months, came under my care in the month of July, 1830. His head was of an enormous size, and had been so from its birth: the forehead was large and prominent; his eyes heavy, and somewhat convulsed; frequent hiccup and vomiting, &c. Several gentlemen had seen the case, and they all gave it up as hopeless. In the beginning of August, Dr. Conquest performed the operation upon this child, and immediately the fluid issued forth in a stream, at first clear, and afterwards a little tinged with blood. During the remainder of the day the child continued rather weakly, but was more lively than he had ever previously been, and for some time afterwards the intensity of all the former symptoms greatly diminished. When a month, however, had nearly elapsed, it was considered requisite to repeat the operation, and on the 3d of September Dr. Conquest again extracted a clear liquid, to the amount of twelve ounces more. The child sleeps well, eats heartily, is very lively, and in full possession of all its mental faculties."

This child is now in the Orphan Working School. His head, which was so enormously large at the time of the operation, it is stated remained stationary, although the size and strength of the body has gradually increased in proportion to the age of the boy; and now that nearly eight years have elapsed, the head, although disproportionately large, remains at about the same dimensions.

The *fourth* case is that of Elizabeth Forster. From this child's head *fifty-five* ounces were at different times drawn. Dr. F. Cook, who saw this patient five years after the operation, writes to Dr. Conquest: "Her countenance and general appearance are healthy, her appetite good, and her rest at night undisturbed; she has been attending a school in the village, where her progress has been equal to that of the other children; she answered questions which I addressed to her on this and other subjects, with a shrewdness for which her governess says she is remarkable. The greatest circumference of the head is twenty-two inches; the ossification is complete, with the exception of the posterior fontanel, and two other openings of the same size, two inches apart, on either side of the medial line, in the course of the coronal suture."

Dr. Conquest has not published the details of the other fifteen cases; all the information furnished respecting them is contained in the following tabular view of his cases.

No.	Name.	No. of times operated on.	Quantity withdrawn.	Living.	Dead.
1	Catherine Seager .	1	℥ xxxij.	1	0
2	William Honey .	3	xxxivss.	0	1
3	William Wilmer .	2	xxiv.	1	0
4	John Hall	5	xlviijss.	0	1
5	Alfred Parman . .	4	xlv.	0	1
6	Mary Ragon . . .	3	xxvj.	1	0
7	Charles Discomb .	2	xx.	0	1
8	John Ward . . .	1	viij.	0	1
9	John Clauditt . .	2	xxij.	0	1
10	Charles Clarke . .	2	xvij.	0	1
11	Elizabeth Forster .	5	lv.	1	0
12	Jemima Evans . .	1	vijss.	0	1
13	Jane Brocken . .	1	xiij.	1	0
14	Eleanor Mahoney .	1	ix.	1	0
15	Francis Chiddy .	4	xxxiij.	0	1
16	Thomas Norman .	1	vj.	1	0
17	Anne Armenio . .	3	xxxjss.	1	0
18	James Thomson .	2	xiv.	1	0
19	John Pratt . . .	1	ix.	1	0
19		44	455	10	9

From the above table it appears that of the nineteen children operated upon, ten were living when last heard of, and nine are dead; "but it is only fair to state, that as most of these children were amongst the lower classes of society, who are continually changing their residences, several have been lost sight of, and may now very probably be dead, although when last seen some time subsequently to their having been operated upon, they were living."

"Of course," says Dr. C., "these operations have been attended with different degrees of success. Unquestionably some are cases of perfect recovery; but in every instance there has been a very marked diminution of suffering, and prolongation of life, and in no one case has a fatal termination been accelerated.

"Dr. B. G. Babington has analysed the fluid with great care, and states its specific gravity to be 1004. It does not coagulate by heat, acids, or alcohol, and consequently does not contain albumen. Tincture of galls produces no immediate precipitate, but after standing some hours a few brown flocculi subside, proving that it contains a very little gelatine. On evaporation, 1000 grains yield 10 grains of solid matter, chiefly chloride of soda, proved by precipitation with nitrate of silver. The liquid therefore contains, in 100 parts—

Water, - - - - -	99.
Gelatine, - - - - -	.1
Chloride of soda, - -	.845
Other salts and loss, - -	.055
	100.000

"In no instance has clearly marked congenital disease been permanently benefitted, and those cases have done best in which effusion manifestly resulted from inflammatory action, and in which cerebral excitement followed the operation."

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33. *Causes which retard the consolidation of Fractures.* The *Archives Générales* for August, contains an interesting article on this subject, by M. Louis Fleury.—Two indications must be fulfilled, observes M. F., to insure the perfect consolidation of fractures: 1st. Placing the broken ends in contact. 2nd. The maintaining them in this position. The former is done with facility, but there are some difficulties in accomplishing the latter. At the present day, most surgeons are of opinion that complete immobility of a fractured limb, joined to strong pressure on the soft parts, are the best means of maintaining the fragments in position, and of obtaining a quick and regular consolidation. Unfortunately, these means are frequently unsuccessful; and, notwithstanding the care used in their application, the callus is frequently thrown out in an irregular manner, or perhaps never formed at all. What, then, are the causes which prevent or retard the consolidation of a fracture? Authors have enumerated a great number, but seem to have overlooked a very important one. Scrofulous and venereal affections, old age,—rents in the periosteum,—formations of pus,—cold applications,—all, undoubtedly, exercise a prejudicial influence. But, by far the most frequent of all the causes, is the apparatus used with the view of favouring the consolidation, which it prevents by the compression it exercises upon the vessels of the limb; whether this compression is inevitable, as in the moveable apparatus, or produced voluntarily by the surgeon.

If a fractured thigh be placed in a thick layer of soft materials, the effects of the compression cannot be very appreciable; for, in this case, although the capillary circulation and the small arterial branches are more or less restricted, still the large vessels continue free. The same does not occur in the forearm or leg, where compression, ever so slight, interrupts the course of the blood, not only in the superficial vessels, but also in those which supply the fractured bone and periosteum. In order to obtain a rapid and regular consolidation, we must be careful not to apply more splints than are absolutely necessary, and not to bind these too tight by means of bandages. In following an opposite method, we wait, sometimes, three, four, or six months, for a union which has not yet commenced. It is then that the surgeon, eager at each dresing to reapply the apparatus, with more care, that is to say, to augment the number of splints, surrounds the limb more exactly, &c., finds himself deceived; and the more he renews his efforts, by the same means, the greater is the distance separating him from his object.

The following case, one of four reported, exemplifies the beneficial results of this practice.

Case. C. D. aged 41 years, had a fall on the 15th of February, 1836, broke his right leg, and entered the same day the Hospital of St. Louis. The fracture was complete, situated immediately above the internal malleolus, and complicated with a deep excoriation and extensive ecchymosis. The wound was dressed with cerate, the rest of the leg covered with charpie dipped in the white of egg, and the ordinary apparatus for fractures of the leg immediately applied. The member was maintained in absolute repose during six weeks. On the 10th of April, the apparatus was removed, the wound was found cicatrized; the ecchymosis had disappeared, but the consolidation had not commenced. The appa-